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NTE1556
Integrated Circuit
VIR Signal Processor for Color TV

Description:

The NTE1556 is a monolithic digital integrated circuit in a 16–Lead DIP type package which automatically corrects the tint (hue) and color (chroma) of color TVs using VIR signals. This device constantly provides optimum colors when added to the chroma circuit.

Features:

- Single Chip Construction with Functional Circuits for VIR Signal Detection, Tint Control, and Color Control
- Low Power Consumption
- Few External Components Required and can be used without any Adjustments

Absolute Maximum Ratings: (T_A = +25°C unless otherwise specified)

Maximum Supply Voltage, V_{CC}max 15V

Pin Current

Pin10, I_{10} 20mA

Pin6, I_6 . . . . . –10mA

Pin14, I_{14} . . . . . –10mA

Allowable Power Dissipation ($T_A \leq$ +65°C), $P_d$max 500mW

Operating Temperature Range, T_{opr} . . . . . –20° to +75°C

Storage Temperature Range, T_{stg} . . . . . –55° to +125°C

Electrical Characteristics: (T_A = +25°C, V_{CC} = 12V unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Circuit Current	I_{15}	SG2 = 65mV_{PP}, SG3 = 0, SG5 = 0.55V_{PP}	–	15.5	–	V
LED Driver Output High Level	V_{10H}	SW1: OFF	10.9	–	–	V
Low Level	V_{10L}	SW1: ON	–	–	0.4	V
Tint Control Output High Level	V_{6H}	SW1: ON, V_4 = 0V	–	10.0	–	V
Low Level	V_{6L}	SW1: ON, V_4 = 2V	–	5.65	–	V
Color Control Output High Level	V_{14H}	SW1: ON, V_{13} = 0V	–	8.7	–	V
Low Level	V_{14L}	SW1: ON, V_{13} = 1.7V	–	3.3	–	V

Electrical Characteristics (Cont'd): (T_A = +25°C, V_{CC} = 12V unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
VIR Tint Adjustment Voltage	V_6	SW1: ON	–	1.6	–	V_{PP}
Tint Control Characteristics High Level	V_{4H}	SG2 = 0	6	–	–	V_{PP}
Low Level	V_{4L}	SG2 = 65mV_{PP}	–	–	50	mV_{PP}
Color Control Characteristics High Level	V_{13H}	SG5 = 650mV_{PP}	6	–	–	V_{PP}
Low Level	V_{13L}	SG5 = 550mV_{PP}	–	–	50	mV_{PP}
VIR Killer Input Level	V_{KIL}	SG3 level at which LED is turned OFF	–	0.28	–	V_{PP}

Pin Connection Diagram